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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,612	02/27/2002	Jurgen Siemel	Q68455	3431

7590 03/04/2005

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EXAMINER

HAN, QI

ART UNIT PAPER NUMBER

2654

DATE MAILED: 03/04/2005

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/069,612
Filing Date: February 27, 2002
Appellant(s): SIENEL ET AL.

MAILED

MAR 04 2005

Technology Center 2600

Christopher R. Lipp
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/15/2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Grounds of Rejection to be Reviewed on Appeal*

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barzegar et al. (US 6,363,079) hereinafter referenced as Barzegar.

Regarding **claim 1**, Barzegar discloses a multifunction interface facility connecting wideband multiple access subscriber loops with various networks, comprising:

a communication network architecture (Fig. 1) (column 5, lines 1-50) providing narrowband network through (circuit) switches and/or broadband network (through packet switches such as ATM, SONET, an internet backbone (column 8, lines 13-16), which corresponds to the claimed “a network”;

a communication interface of the intelligent services director (ISD) 22 (Fig. 1) at user side, for collecting different customer premise equipments (equivalent to terminal) (CPE) 10 and coupling a twisted-pair wire 30 to a central office 34 (column 5, lines 3-5) at network side, which corresponds to the claimed “a terminal communicably linked to said network”;

in the network, an access network server complex 38 (Fig. 1) comprising:

a facilities management platform (FMP) 32 (including a switch) providing a detector for detecting call signaling data from user side via ISD 22 and providing direct mechanism for handling signaling data (column 10, lines 46-66 and column 13, lines 3-8), which reads on the claimed “a switch comprising a detector for detecting an indication signal generated by said terminal;” and

a network server platform (NSP) 36 (Figs. 1 and 4B) including a voice/call processor 186 (Fig. 4) to handle call and data routing functions, and voice recognition functions (meaning speech recognition) for spoken commands

(column 10, lines 25-44), which reads on the claimed “a speech recognizer for vocal commanding”; and providing high priority to voice communications by the ISD 22 by providing a bandwidth on demand (column 13, lines 40-45) and the signaling information by transmitting a request for bandwidth to the NSP 36 [46] (column, 18, lines 9-10), which necessarily includes a mechanism “for adjusting a variable capacity parameter”, since bandwidth-on-demand must provide a capacity related parameter, such as bandwidth or transmission rate, for implementing the functionality.

But, Barzegar dose not expressly discloses combining speech recognition for spoken commanding and bandwidth-on-demand together for implementing functionality as the claimed “said speech recognizer comprising an adjustor for adjusting a variable capacity parameter for said vocal commanding based on said indication signal detected by said detector.” However, Barzegar teaches that the **preferred embodiment** provides a bandwidth on demand feature through the interface **ISD 22** (and NSP 36 [46]) (Fig. 1) (column 13, lines 30-45); the **preferred design** includes the voice dialing service feature by using ISD 22 and NSP 36 (column 15, lines 5-32); and the voice/call processor (in NSP 36) may handle voice recognition functions for spoken commands (voice commanding) from **any of the ISD** connected devices (column 10, lines 40-45), which suggests the motivation and connection for combining speech recognition and bandwidth on demand features for spoken commands in the application. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to provide the preferred design into the preferred embodiment by combining speech recognition feature and bandwidth on demand feature for spoken commands (voice

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commanding), as taught by Barzegar, for the purpose of fully taking advantage of available services and offering efficient communications (column 13, lines 43 and column 15, lines 31-32) for the system.

Regarding **claim 2**, Barzegar discloses everything claimed, as applied above (see claim 1). Particularly, Barzegar discloses a request/response signaling dialog mechanism between user and network via ISD 22 (Fig. 1), FMP 32, and NSP 36, for bandwidth on demand application (column 13, lines 9-45), and a client/server type of service for adjusting, updating and reinitiating demands by using applets applications (column 6, 16-39), which corresponds to the claimed “said adjustor further adjusts said capacity parameter based on a network signal generated by said network.”

Regarding **claim 3**, Barzegar discloses everything claimed, as applied above (see claim 1). Barzegar further discloses a voice dialing scenario in that on use side, a subscriber picks up the telephone (start to collect voice data that is equivalent to preprocess) and if no digits have been dialed after a specified period of time has elapsed, the ISD 22 (Fig. 1) may start digitizing the voice information into data and the voice samples are then stored in a wave file, which is subsequently transmitted to the FMP 32; on network side, the FMP 32 will forward the received information the NSP 36 and the NSP 36 will attempt to authenticate the request, determine the identity of the subscriber by looking at the address, interpret the information (herein equivalent to final process) in the wave files and take the appropriate action (column 15, lines 2-15), which corresponds to the claimed “said terminal comprises a preprocessing unit for preprocessing signals, and said speech recognizer comprising a final processing unit for final processing said preprocessed signals.”

Regarding **claim 4**, it discloses a “speech recognizer for use in a telecommunication system”, which corresponds to the claim 1. The rejection is based on the same reason described in claim 1, because claim 4 recites same or similar limitation as claim 1.

Regarding **claim 5**, Barzegar discloses everything claimed, as applied above (see claim 4). In addition, the rejection is based on the same reason as claim 2, because claim recites same or similar limitation as claim 2.

Regarding **claim 6**, Barzegar discloses everything claimed, as applied above (see claim 5). In addition, the rejection is based on the same reason as claim 3, because claim 6 recites same or similar limitation as claim 3.

Regarding **claims 7 and 9**, they disclose a “terminal for use in a telecommunication system”, which correspond to the claims 1 and 3 respectively. The rejection is based on the same reason as claims 1 and 3 respectively, because claims 7 and 9 recite same or similar limitation as claims 1 and 3, respectively.

Regarding **claim 8**, Barzegar discloses everything claimed, as applied above (see claim 7). Barzegar further discloses a communication interface of the intelligent services director (ISD) 22 at user side, for collecting different customer premise equipment (CPE) 10 that may couple to a normal telephone 15 and/or a digital phone 18 (see Fig. 1), which corresponds to the claimed “said terminal comprises a man-machine interface for receiving said indication signal.”

Regarding **claim 10**, it discloses a method that corresponds to the apparatus of claim 1; the method is obvious in that it simply provides functionality for the structure found in claim 1.

Regarding **claim 11**, Barzegar discloses everything claimed, as applied above (see claim 1). Barzegar further discloses a communication interface of the intelligent services director

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(ISD) 22 at user side, for collecting different customer premise equipment (CPE) 10 that may couple to a normal telephone 15 and/or a digital phone 18 (see Fig. 1), which inherently includes a indication signal (initiating signaling) when one starts a call, which corresponds to the claimed “said indication signal is generated by said terminal.”

Regarding **claim 12**, Barzegar discloses everything claimed, as applied above (see claim 1). Barzegar further discloses a communication interface of the intelligent services director (ISD) 22 at user side, for collecting different customer premise equipment (CPE) 10 that may couple to a normal telephone 15 and/or a digital phone 18 (see Fig. 1), wherein the telephone inherently includes a key pad for keying signal as a indication signal (initiating signaling) when one starts a call, which corresponds to the claimed “said indication signal comprises a telephone number, a key signal or a vocal signal generated by a user of said terminal.”

Regarding **claim 13**, Barzegar discloses everything claimed, as applied above (see claim 1). Barzegar further discloses the FMP/NSP providing bandwidth-on-demand feature (column 17, lines 37-60) and a public switch using SS7 type network (column 5, lines 34-35) that inherently includes processor for generating signaling (interactive operating signals in for connection in the communication network), corresponds to the claimed “said switch comprises a processor for generating an information signal in response to the indication signal detected by said detector, said adjustor adjusts said capacity parameter based on said information signal.”

Regarding **claim 14**, Barzegar discloses everything claimed, as applied above (see claim 13). Barzegar further discloses a public switch with SS7 type network (column 5, lines 34-35) that inherently includes processor for generating signaling (operating signals for interactive connection in a communication network) and the FMP/NSP providing bandwidth-on-demand

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feature (column 17, lines 37-60), which corresponds to the claimed “said processor controls at least one of an available bandwidth, sampling rate, and noise reduction with regards communication with said terminal based on said capacity parameter.”

(7) *Response to Argument*

With respect to the Rejections regarding independent claims 1,4,7,10 under 35 USC § 103:

In response to appellant's arguments that “the cited reference (Barzegar) does not teach or suggest adjusting a capacity parameter for the vocal commanding based on the indication signal, as required” (brief: page 11, last paragraph), and “nowhere does Barzegar teach or suggest that the voice dialing service provided network ... adjusts a variable capacity parameter for vocal commanding” (brief: page 12, paragraph 2), examiner disagrees with appellant’s arguments and has a different view of the prior art teachings/suggestions and the claim language interpretations.

Firstly, it is noted that, as stated in the claim rejection, Barzegar discloses detecting and handling signaling data (column 13, lines 3-8) that includes indication signal from user terminal, voice recognition functions (here meaning speech recognition) for spoken commands (voice commanding) (column 10, lines 25-44), providing high priority to voice communications by the ISD 22 by providing a bandwidth on demand (column 13, lines 40-45) that necessarily includes a mechanism (adjustor) “for adjusting a variable capacity parameter”, since bandwidth-on-demand must provide a capacity related parameter, such as bandwidth or transmission rate, for implementing the functionality, therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to provide a system of combining all above prior art

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teachings and suggestions, so that the combined system provides all capabilities as rejected for the claim(s) (see details in the claim rejection).

Secondly, Barzegar further discloses that ‘the data stream will contain signaling information (unless a voice-activated dialing feature is being used)’ (column 12, lines 58-59); and ‘the controller multiplexer may response (detect) to the signaling information (indication signal) by transmitting a request for bandwidth (reads on adjusting a capacity parameter) to the NSP 36 [46]’ (column 18, lines 8-9), which suggests that signaling information involves requesting bandwidth (necessarily having a bandwidth related parameter, which reads on variable capacity parameter) and voice-activated dialing may be used for replacing or being part of the signaling information, so that this can also satisfies and reads on the claimed “adjusting a capacity parameter for the vocal commanding based on the indication signal, as required further provides evidence for the rejection”. For example, when combining the features of voice recognition and bandwidth-on-demand, the adjusted variable capacity parameter (requested bandwidth) may be provided by spoken commands, as being user initial request signaling information or part of it, for the bandwidth-on-demand processing.

In response to appellant's arguments that in the cited reference, “the capacity parameter for the vocal dialing appears to be fixed” (brief: paragraph bridging pages 11-12), examiner as a different view of the prior art teachings/suggestions, because the prior art disclosure not only give example of using 64kbps-law PCM data for a voice dialing scenario, as appellant argued, but also teaches that system may use variety of devices including analog and digital voice telephones 15, 18, videophones 130, and personal computers 14, with a single and/or multiple twisted-pair wires and/or a wireless connection (column 6, lines 41-49), which most likely have

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different capacities for a call; and that system has a packet-to-circuit translation subsystem (column 11, lines 41-42) and the user would indicate whether a call was to be handled through a narrow network or a broadband network such as a packet-switched network (column 8, lines 11-15); so that nowhere in the prior art prevents from using variable capacity parameter for a vocal dialing. It also noted that even though prior art discloses a simple example of voice dialing scenario for using speech recognition functions, nowhere in the reference indicates or suggests that the voice dialing is limited to only a calling member/name recognition, or spoken commands is limited to only voice dialing. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to combine the teachings of speech recognition for spoken commands, voice dialing, bandwidth-on-demand and variable capacity, for providing on more parameter of requesting bandwidth for voice dialing, or a bandwidth request command for the spoken commands, for the propose of fully taking advantage of available services and offering efficient communications (column 13, lines 43 and column 15, lines 31-32) for the system.

In response to appellant's argument that "there is no disclosed or suggest connection between the voice-dialing application and the bandwidth-to-demand application", "the examiner ... not provide any motivation to combine" (brief: page 11, paragraph 2 to page15, paragraph 1), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the obviousness is based on the prior art teachings and/or common knowledge in the

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art. As stated in the rejection, Barzegar teaches that the **preferred embodiment** provides a bandwidth on demand feature through the interface **ISD 22** (and **NSP 36 [46]**) (Fig. 1) (column 13, lines 30-45); the **preferred design** includes the voice dialing service feature by using **ISD 22** and **NSP 36** (column 15, lines 5-32); and the voice/call processor (in **NSP 36**) may handle voice recognition functions for spoken commands (voice commanding) from **any of the ISD** connected devices (column 10, lines 40-45), which suggests that there is some connection and motivation to combine speech recognition for spoken commands (including voice dialing) and bandwidth-on-demand in the application between the two argued applications because both features need to use or connect to the two functional devices ISD and NSP. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to provide the preferred design into the preferred embodiment by combining speech recognition and bandwidth-on-demand features for spoken commands, as taught by Barzegar, for the purpose of fully taking advantage of available services and offering efficient communications (column 13, lines 43 and column 15, lines 31-32) for the system. It is also a common knowledge in the art to use spoken commands to request bandwidth for a call, if the system provides all features or capabilities of speech recognition, spoken command for voice dialing, bandwidth-on-demand, signaling involving bandwidth request, as the reference disclosed.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (brief: page 15, paragraph 2), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge

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gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). As stated above, examiner believes that the knowledge was within the level of ordinary skill at the time the claimed invention was made, so that the rejection with combined prior art teachings is proper.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Qi Han
(Examiner at Art Unit 2654)

March 2, 2005

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